MAINE FARMER

AND JOURNAL OF THE USEFUL ARTS.

BY WILLIAM NOYES & CO.] "Our Home, Our Country, and Our Brother Man." [E. HOLMES, Editor.

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THE FARMER.

WINTHROP, FRIDAY MORNING, DEC. 16, 1836.

Chemistry for Farmers. No. 26.

POTASH AND ITS COMPOUNDS.

Another of the combinations of potassa, and one of some importance, though not of such general use as those mentioned, is the *Chlorate of Potash*. You will recollect what was said of the simple substance called *chlorine*. By passing this gas through a solution of carbonate of potash, and after a certain time two compounds are produced, one of them is called the *chloride*, formerly the muriates of potash, and the other chlorate. The chlorate is not obtained however unless you set the solution away in a dark cool place when flat pearly crystals will be deposited. These crystals may be purchased at the apothecaries, and are used sometimes for making percussion powder for fowling pieces.—This substance contains a large quantity of oxygen, and hence presents some very energetic properties If a portion of it should be mingled with an equal quantity of pulverized sugar, and a drop of sulphuric acid placed upon it, a brisk chemical action takes place, and fire instantly starts forth with a bright blaze. Advantage has been taken of this fact in the manufacture of chlorate matches—or that kind which are sold with a little bottle of acid into which the matches are put in order to make them take fire. The matches after being dipped in melted sulphur are wet with a little gum water and then thrust into the above mixture when a coating of it adheres to the match—these are colored red or some other color, and when dry are ready for use. A little asbestus is put into a small bottle and some sulphuric acid when they are packed up for sale.

The mode of making the percussion powder is as follows:—(1.) 100 parts of chlorate of potash, (fulminating salt,) 12 parts of sulphur, and 10 parts of charcoal, are closely mixed. The grains are produced by forcing the soft paste through a sieve —Or, (2.) 100 parts of chlorate of potash, 42 parts of saltpetre, 36 parts of sulphur, and 14 parts of lycopodium.

Some French Chemists proposed to substitute the salt for saltpetre in the manufacture of gunpowder —but when the materials were mixed and the usual mode adopted by pounding, a tremendous explosion took place which killed some of the workmen and put an end to the experiment. The explosive powers of this salt can very easily be shewn by taking a small quantity and putting into a mortar with a very little sulphur—after mingling them together intimately, collect them in a small bunch together and press suddenly upon them with the pestle, when a smart explosion will be the result.

With the exception of the use which is made of it for percussion powders—chlorate matches, Lucifer matches, &c. it is not much used, nor of much importance in the general arts of life.

SULPHUR AND POTASH. If potassa or the carbonate of potassa be melted together, a combination takes place which has a liver colored appearance, and from this circumstance was called by the old Chemists *Liver of Sulphur*. It is the sulphurate of potash. This substance is dissolved by water, and even deliquesces, that is, attracts moisture from the atmosphere and becomes in time liquid thereby. If a little acid be dropped upon it a very fetid gas resembling that which arises from putrid eggs is given out. This is the Sulphuretted hydrogen gas, as perhaps this process is the most convenient mode of obtaining it. This combination is not much used.

There is an explosive mixture of potash with sulphur made for sport in the following manner, viz.: three parts of Nitre of potash, (salt petre) two parts of dry carbonate of potash and one of sulphur—these should be intimately mixed. A little put upon a shovel and heated, will explode and it is not a little curious that the fire of it seems to press downward more than in any other direction.

Potash unites with the Sulphuric acid and forms Sulphuret of Potash which is used sometimes in medicine.

It unites with most of the acids, and many of the simple substances, but the combinations which we have mentioned are the most important and useful. Indeed in some shape or combination or other it is in constant use among us, constituting one of the most common and at the same time most essential articles of life.

It is an ingredient of the trees of the forest—in many soils—in many manures—in the timber of our houses—in the glass of our windows—in the preparations of our food, and in many other substances necessary to our comfort and existence.

For the Maine Farmer.

Wolf in the Jaw Bone of Cattle.

MR. HOLMES:—I herewith send you the under jaw of a three years old Steer that came from the Kennebec and Somerset Company's pasture after the middle of October last. He had a bunch upon his jaw bone and a swelling leading from that to the neck, which I considered evident marks of inflammation. On the 24th of Oct. I sent for Mr. Joseph Wood, who extracted one of the teeth in that jaw. The inflammation subsided soon, and he fed well on pumpkins, oats and hay, and as he was an odd steer, that is, I had no mate for him, and fodder being somewhat scarce, I thought it advisable to fat him, and accordingly had him well fed. This day he was killed. He weighed about 750 lbs. On the outer side of the bone you will perceive a hole in which was contained a matter similar to what I have seen in wens. I would suggest the propriety of extracting in such cases more than one tooth. Yours, &c.

ELIJAH WOOD.

Winthrop, Dec. 4, 1836.

NOTE. On dissecting the jaw it was found that the cause of the disease was probably ulcerated roots of the teeth in that jaw. Five of the teeth were found to be very much diseased, more so than the surrounding bone. Hence we consider it fair to conclude that the teeth were first attacked, although the upper part of the teeth were perfectly sound. The bone was considerably enlarged and beginning to be carious. In all probability had the two largest middle teeth of that jaw been extracted the disease would have been arrested in its course.

The extraction of teeth should be done as early after the appearance of the disease as possible, before the bone becomes much affected. ED.

For the Maine Farmer.

"Notes of our Travels."

MR. HOLMES:—This is the caption of an interesting article from the Genessee Farmer, (a paper, by the way, rich in valuable and interesting matter for the farmer,) on which I purpose to make a few remarks.

After noticing some of the effects of the untimely frosts to which that region had been subjected, the writer proceeds to give a theory which should explain and give the *why* and the *wherefore* such an effect should take place. He assigns two principal causes operating to produce the effect noticed. These are, "Radiation and evaporation." To prove this he adverts to the well known fact, "that the heat in a metalic vessel fiilled with hot water, may be let off six times as fast, simply by painting its surface black." "This result," he says, "is entirely independent of the contact of colder substances; and the open ground may freeze when the temperature of the air only a few feet above it is ten or twenty degrees warmer."

I doubt much the soundness of the writer's views in point of philosophical accuracy, in the above quotation. I believe a metalic vessel painted black in contact with a substance of the same temperature will not let off *any* caloric; and that it is owing to a contact with some colder substance that causes this effect to take place. This substance may be atmospheric air, but still it is a substance. But perhaps, the writer meant, instead of the "*result*" as being independent of such a contact, the *capacity* of the vessel for letting off the caloric.—This I grant is peculiar to such a vessel. Again, with regard to the freezing of the open ground while the air is warmer a few feet above, I question its correctness as a matter of fact of general application. That it is sometimes the case I do not doubt, but I think the cause a different one from that assigned. If, however, experiments have proved this to be the fact, I should like to know it.

This writer adverts to the capacity of black soils in this respect; and hence he observes, "we may expect them to be more subject to vernal and autumnal frosts than pale colored soils." And he further observes, "that in such swales where black

spongy soils are found, that corn and potatoes are most commonly damaged by frosts." Here the writer assumes as fact, what I believe is totally incorrect. In the first place, they, as a general thing, lack what he would represent by the painted metalic vessel; instead of being painted black, or exposing a black surface, they are covered with a *green* carpet of vegetable matter. This is a poor conductor of caloric. Besides this, the moisture which concentrates in such places by gravitation, and is there retained by the texture of the soil, more than counterbalances the tendency in such soils to absorb or radiate caloric. Taking then these two causes together, it will be found, there is but little difference in the temperature of such soils, whether at mid-day or mid-night. I even doubt whether it would amount to five degrees; and perhaps more frequently less.

But there is one very important fact in the case of untimely frosts, which this writer seems to have entirely overlooked; this is the state of the atmospheric air the day preceding. I believe it is almost always the case (and I know not but it always is) that such frosts are preceded by dry cold winds from the North and West. The whole body of air near the surface of the earth is completely cooled. So frequent is this the case, we often hear the remark made, when such winds have been blowing, and cooling the atmosphere, "If it is *clear* and cold to night, I fear there will be frost." This proves to a demonstration, in my mind, that one of the most efficient causes of such frosts, is the *whirling down* of the *cold air* above us, which mixing with the warm air near the earth, and bearing it away in its progress, leaves the surface of the earth exposed to the effects of its chilling and freezing influence. The only thing that ever puzzled me in reconciling this theory with facts, is, that such frosts should be more frequent on plains and in vallies than on hills; but as I have adverted to this in my communication "On the Climate of Maine," and detailed my views fully there, I shall not repeat them here.

And here I observe, though I am not a practical Chemist, and understand but little of its theory, I am aware of the means by which cold may be produced by chemical process; and that causes having such effects near the surface of the earth may be in operation in Nature's laboratory, to concur with those above stated, I neither affirm or deny. I would observe also, that our ideas of what we term calm weather, may be incorrect, and that there is more of motion in the air than we are aware of. I believe it is seldom if ever entirely still. But at such times when our senses do not distinctly indicate any breeze, the currents of air in motion are very irregular, being drawn to different points, as causes exist to rarify or condense the air; and this circumstance may satisfy us, in some measure, how such diversified effects take place, for when or where a regular breeze takes place, as on the tops of hills or on plains, the effects are more uniform; though subject there to be controled by other causes. (*To be continued.*)

Peru, November, 1836. J. H. J.

Circular.

Sir,—In accordance with a vote of the Legislature of Maine and Massachusetts, a Geological Survey was commenced this year, for the purpose of ascertaining the nature, position, and value of the various rocks, minerals, and soils, which occur in the State of Maine.

Three months of this season have been employed in bringing to light your mineral resources. One half of the sea coast, and portions of the interior, have been explored, and have furnished many valuable mineral substances; specimens of which are deposited in the State House, at Augusta, for public use. We are now engaged in the chemical analysis of the rocks, minerals, and soils discovered, and in the elaboration of a Report to the Government of the State.

In order to expedite the survey of your immense territory, we now respectfully solicit your aid in collecting *specimens* of the various MINERALS, ROCKS and SOILS of the State. You can assist us by bringing or sending to the State Department, at Augusta, fair specimens of the different rocks, minerals, and soils found in your vicinity, or upon your own land. It is essential that the specimens of rocks or minerals should be taken from ledges or rocks *in place*, and every mineral should be accompanied with a piece of the rock in which it is found. *Specimens may be broken into square pieces four or five inches wide and two or three inches thick*, (when there are no crystals or fossils that would be destroyed by breaking the pieces into regular dimensions.)—In such case, the charasteristic forms are to be preserved. Soils are to be collected in fields that have not been manured, and ought to be taken generally from uncultivated fields, and below the vegetable mould and sod. A good method is, to cut out a square with a spade, and turning it up, *take the soil from the bottom eight inches below the surface.* About a pint measure of soil will form a fair specimen. I am also desirous, that you should be very careful in marking *the name of the farm or town, with remarks on the nature of the soil, according to your own experience and observation.* Please also note the *nature of the rocks* in the same field, and select some of the decomposed fragments as an example of the kind of soil it would form by disintegration.

Every specimen, whether mineral, rock, or soil, should be *packed up securely in strong paper and a label indicating the name of the estate and town should be pasted upon each specimen, so that* no mistake may arise in arranging them.

It is in contemplation to form a large collection of the mineral products of the State, for the use of the Legislature, and for the citizens. Probably a State Museum or Cabinet of Natural History will be established at Augusta for this purpose. It will then be desirable to collect every kind of natural production found in the State to enrich the public Cabinet. You will therefore advance our proposed object, by sending any characteristic and well preserved specimen of Natural History to the State House, in Augusta. *River, Lake, and Sea Shells, Insects, Fishes, Reptiles, Skins, Horns, and Skulls of wild Animals, if well preserved, will be valuable.*

Insects, Fishes, Reptiles, and small Animals, may be preserved, by immersing them in *Rum* or *Spirits of Wine.* A tin Canister, with a large mouth and stopper, will answer to preserve and transport such specimens. If many are put in the same jar, they should be *slightly wrapped up in a piece of cotton or linen to prevent their rubbing against and injuring each other.* If you undertake to preserve the *Skins* of *Birds* or *Quadrupeds*, it is essential that the skin should be removed whole as possible, containing the skull and feet entire, (the brain being removed from the skull, by means of a wire thrust through the opening at the base, or by cutting or boring a hole for the purpose.) Skins cannot be preserved free from the devastations of insects, unless they are rubbed with powdered *White Oxide of Arsenic.* SKULLS, if entire and clean, are very desirable; the lower jaw and all the the teeth being also preserved.

As we meet with a variety of tastes among individuals, I have suggested a number of different pursuits, but I beg, that you will not feel discouraged by this call upon you industry. If you can do any thing in any one of the above departments, you will materially aid in our great enterprize, and I am sure you will find some one of the branches, I have mentioned, agreeable to you, and that your good will and public spirit, will induce you to aid us in a laudable pursuit, beneficial alike to the State and to each individual citizen.

Respectfully, your obedient Servant,
CHARLES T. JACKSON, M. D.,
Geologist to the State.

November 4, 1836.

It is a common remark that those men talk most who think least; just as frogs cease their quacking when a person brings a light to the water-side.

From the Genesee Farmer.

Influence of Canals and Rail-Roads on Agriculture.

One of the most striking signs of the times in which we live, and that which will most probably leave the deepest impress to after ages, is the spirit of improvement which is showing itself in the construction of canals and rail-roads. These improvements are felt in every part of our extended country, and in the impulse they give to every branch of commerce and industry; but it is with their influence on agriculture that we as farmers have principally to do. They furnish facilities to travel—they assist in the transportation of merchandise—and they enable the farmer to carry many things to a profitable market, which from their bulky or perishable nature, were formerly nearly worthless to him; and unless we are much mistaken, much of the agricultural prosperity we have enjoyed for a few years past, and the present high prices of real estate, may be traced to these sources.

Canals and rail-roads have an influence on the profits of agriculture during their construction, by withdrawing large numbers from the culture of the soil and employing them on such public works. Whatever may be the employment of men, they must be fed; and while the number of mouths remain the same, any reduction of the class of producers has a sensible tendency to increase their profits. There are at the present moment probably not less than 200,000 persons employed on such works of improvement, consuming annually a million and a half bushels of wheat, vast quantities of provisions, potatoes and other vegetables, independant of the immense demand for the coarser grains, suitable for horse feed, and for all which they are of course dependent on the agriculturist for a supply.

Improved means of communication profit agriculture materially, by lessoning the cost of articles of prime necessity in farming, thus enabling him, with little additional labor, to greatly augment his productions. To illustrate this we may take the Erie canal and the single article of plaster. From the Mohawk to the Niagara the facilities of transporting the ground article are such, that in the few districts where it is not found, it may be purchased at such low rates as scarcely to form an obstacle to its general use. The easy acquisition of plaster has, by introducing the extensive use of clover in rotation with wheat, nearly doubled the capacity of the country for many miles on each side of it, for the staple commodity of our state, and millions of bushels are yearly produced, that but for plaster and clover would have no existence. Previous to the construction of the canal the price of salt furnished a serious drawback to the prosperity and profits of the farmer in our western counties. If he devoted his farm to raising cattle, salt was indispensable to their growth and health; if the dairy was his object, there was an additional demand for salt created, which together sensibly reduced the aggregate profit of the farm. Already have our canals by furnishing facilities for the removal and transportation of mineral manures, such as marl, plaster, &c., and the greater choice of markets they have offered, as well as in effect lessening the distances to such markets, benefitted the country beyond what the most sanguine once dared to hope. Real estate has increased in value fifty millions in consequence of this state of things, thus giving to agriculture a most stable foundation, in a success almost unexampled. "During a tour," says the celebrated Chaptal, "which I made with Napoleon in Belgium, I heard him express to one of the council of a department, that he was surprized at the vast extent of waste land over which he had just traveled. He was answered thus: 'Give us a canal to transport our manures, and to convey away our products, and in five years this sterile country will be covered with crops.' The canal was afterwards constructed, and the promise realized in less than the required time."

Canals and rail-roads operate to the benefit of the farmer by building up cities and villages all over the country, in which mechanics, merchants, and professional men congregate for the advantage of their repective callings, and where as a matter of course manufacturers usually establish themselves. Here those products of the field and the garden, the whole tribe of culinary vegetables and the produce of the fruit orchard, which formerly

were nearly worthless, are now disposed of at a decent profit, an exchange beneficial to both, but which operates decidedly in increasing the sum total of the agriculturist's gain. The least observation on this point will show, that the influence of these improvements is here practically and beneficially exerted.

Perhaps the effects of canals and improved roads are seen most directly exercising their powerful agencies, where they bring into general use articles of the greatest value and of the first necessity, but which without them could never be got to market, or their production carried on to any considerable extent. We will endeavor to illustrate what we mean.

Before the construction of the Erie canal, the salt springs of Onondaga were of comparatively little value, from three to five hundred thousand bushels being made annually; the salt was wanted, but the cost of transportation was so great, that the least possible quantity was used. The canal was made, and the production has risen to two or three millions—the salt trade has been one of the most active causes in the growth of one of the most flourishing and prosperous villages of New York, Syracuse,—and the important fact has been developed, that the state, in these springs, posses a source of revenue which in an emergency may be made equal to the entire civil expenses of the state.

Not widely different are the facts with regard to the immense beds of sulphate of lime or plaster, which almost line the canal from Madison to Niagara. Those extensive masses of beautiful stone produced from the celebrated Onondaga limestone quarries; and that important product, water lime, so abundant in the same region, so useful in most public works, which has heretofore been imported from abroad at such an expense, and for which the demand is constantly increasing, may almost be said to owe their origin, certainly their working to the same cause.

1800 tons of grindstones are imported into the United States annually from Nova Scotia, for which about twenty dollars per ton is paid. A large proportion of these come to New York. Now it is well known that the southern tier of counties in this state have, in several places, deposits of sandstone nearly or quite equal in grit to those imported, but situated in such secluded districts as to be little worked, and consequently nearly worthless. One of these deposits, in the county of Allegany, we have examined, and this alone would be abundantly able, if worked, to supply every demand that could be made. As it lies near the route of the Rochester and Olean canal, if that work is completed, it is probable it will soon be more extensively wrought, and there can be no doubt that twenty thousand dollars expended in that section annually in the purchase of grindstones, would materially benefit the agriculturists in the vicinity.

The great coal field of Pennesylvania occupies almost the whole central tract north of the Schuylkill river, and between the Delaware and the Susquehanna. Though the coal was known to be of the first quality, and in inexhaustible quantities, the difficulties of penetrating the interior mountainous district to the beds were so great, that little of it was used, and the cities, where coal of necessity was extensively used, depended on precarious supplies from Liverpool or Richmond. With the exceptions of a few favored sections, the agriculture of the Peunsylvania coal region was at the lowest ebb; the scattering inhabitants obtained but a bare subsistence, and large tracts of real estate might be purchased for a song. Stimulated by the example of New York, the state set about the work of internal improvement in good earnest, and canals and rail-roads have penetrated the interior in all directions. As elsewhere, where the experiment has been fairly made, the result has been astonishing. It has furnished additional proof that every dollar expended in works of permanent utility, and in developing the resources of the country, is felt with fourfold effect in the agricultural prosperity of the favored region. As in the case of the Onondaga salt works, the extention of canals especially showed the capabilities of the districts penetrated by them, and the coal sold in the market quickly increased from tens to thousands of tons. In the Philadelphia market in 1820 there were 364 tons sold.

1825	35,536
1830	192.934
1835	680,750

The value of the coal now sold is not short of five millions of dollars a year, and the increase in the value of real estate and agricultural prosperity has been in a ratio scarcely less rapid. It is true that in some of the instances we have mentioned, the connection between them and agriculture is not so plain, as between plaster or manure, and the operations of the farmer; still, their influence on his prosperity is not the less marked or decisive.

That such public works as are now progressing in the country *may* become a curse few will deny, and where they are constructed by companies, the charter conferring such powers cannot be too strictly guarded. In all cases the state should reserve the right of resuming the control, should oppression of the public, or malpractice in any way, require the act. Thus far, however, the influence of canals and rail-roads has been excellent, and no where has this influence been more marked than in our agricultural districts. The price of freedom is eternal vigilance, and incorporated companies must ever be made to feel that they are the servants, not the masters. A.

From the United States Gazette.

Beet Sugar.

To J. R. Chandler, Esq.—Sir—Perceiving by the many applications made to me for information respecting Beet Sugar, not only a very general interest prevails on the subject, but also some very erroneous views, I take leave through year wide circulating paper, to publish a few of my ideas thereon, being the conclusion I have come to, after uumerous experiments, as well as from information I have obtained from the most scientific French authorities.

1. An establishment will not clear its expense unless it be calculated to manufacture at least from two to five hundred pounds of Sugar per day, so that the idea of individuals in this country manufacturing profitably for private consumption is preposterous; their sugar would stand them, including labor, a dollar per pound.

2. The greatest advantage will be derived from steam power, which will accomplish three objects at least, viz—first, the rasping of the beets; secondly, the reducing of the liquor "in vacuo;" and thirdly, the boiling of the syrup without the risk of burning it, of which the beet syrup is in much greater danger than the cane syrup; the proof of the former being some degrees higher than the latter.

3. The juice of the beet decomposes in the summer in this country in less than two hours. I have known the viscid fermentation commence in twenty minutes. When this once occurs, sugar can never be obtained from it, in a large establishment in this country, it must be prevented by chemical agents.

4. Not only must the acid be neutralized, but the mucilage must be chemically coagulated, the cerate decomposed, and the malate of lime extracted, or the crystalizing will be rendered extremely difficult, if not totally impracticable in many cases, and good sugar will never be made.

5. I am persuaded the refining process can be profitably united to the manufacture of the raw sugar.

6. The profits are incredibly increased in proportion to the extensiveuess of the establishment, but no one ought to engage in this business who has not MIND, as well as capital.

7. One half of the manufacturing expenses will be saved by a scientific arrangement of the apparatus, so as to dispense with, as much as possible, manual labor.

8. Understanding from various farmers within from ten to twenty miles of this city, that they are perfectly content with about twenty or twenty-five dollars per acre's produce, and as each acre ought to yield on an everage 40,000 lbs. of beets, which will produce 2400 lbs. of sugar, I have made the following estimate. Supposing the apparatus to be capable of working only about 100 lbs. of sugar per day, it would take twenty-four days to manufacture 2400 lbs. of sugar.

EXPENSES.

One acre of Beers (40,000 lbs.)	$25 00
Two men for 24 days,	48 00
Two boys for do	22 00
Fire and rent, &c.	40 00
Total,	$135 00

RECEIPTS.

Quantity of sugar from the acre of beets, would be 2400 lbs. which at 10 cents per lb. would be	$240 00
Beet cake and molasses, &c.	20 00
Total,	$260 00
Expenses,	135 00
Profits,	$125 00

By this general statement it will be perceived that there will be nearly cent per cent profit, but then the interest of the capital sunk in the purchase of machinery is not included. On the other hand, the two men could work twice or four times as much, and the apparatus for the increased quantity cost very little more.

If you think these remarks worth publishing, you are welcome to them, and I am, sir. your very obedient servant, W. W. SLEIGH.

From the Genesee Farmer.

Earthworm.

Earthworm, eelworm, angleworm, fishworm, are names of the same individual, and by which a common, and, as is generally supposed, perfectly harmless worm, is known, in different parts of the country. This worm, however, is becoming so numerous in some places as to be quite a nuisance, and some apprehensions are entertained that it is more injurious to plants than has been supposed. The cause of its great prevalence in some places, while others are exempt, does not appear to be well understood. Its appearance in great numbers in some gardens, for instance, is attributed to frequent and high manuring; but this is not the sole cause is evident from the fact, that other gardens of similar soil, and manured equally high, are entirely free from them.

We know of a neighborhood in which several of the wells of water became undrinkable the past summer from this cause. On clearing them out the earthworm had accumulated in such great and almost incredible quantities, as to impart to the water the most noisome and intolerable taste and smell, difficulties which ceased when the worms were removed. Two or three years since, a farmer of our acquaintance sowed a large field with wheat. It came up well, but the plants on a part of the field somewhat lower than the rest, not wet, but inclining to muck, soon began to turn yellow, and in spite of a fine season for their growth, mostly died. The owner, and others, examined the ground repeatedly, and no cause for the death of the plants could be discovered, unless it was the earthworm, which filled the whole of the diseased part in countless multitudes.

Admitting these charges against the worm are just, how can its increase be prevented, or the worm destroyed? Would not a liberal dressing of quick-lime, well mixed with the soil, do the business effectually?—or when it was not convenient to plough, would not spreading the lime on the surface immediately after or before a shower, during the summer, destroy them?—as it is well known that at such times, where they are numerous, the wet surface will be covered by them. When any insect or animal, however well known, shows an uncommon and disproportionate increase, it should at once attract the notice of the farmer, as danger to his interest in some shape, is at such times always to be apprehended. G.

Agricultural.

From the New York Cultivator.

Pennsylvania Husbandry.

Earthing Potatoes.—A very intelligent farmer from the valley of the Susquehannah, Union county, Pa. has stated to us verbally, some of the agricultural practices which prevail in his neighborhood, and which he is confident may be adopted with profit by others. One of these is raising potatoes without earthing. For this crop a young clover ley is preferred. The manure is drawn out and spread as the ground is plowed, the potatoe sets are dropped in every third furrow, and of course covered with the next furrow slice. The ground is afterwards harrowed, and the crop kept free from weeds, by the harrow or cultivator, and hoe, *but the plants are not earthed.* The plow is only used in gathering the crop. Another mode is to draw shallow furrows, at the distance intended for drills, drop the seed, and cover by gathering two furrows upon the seed. The intermediate spaces are plowed when the crop is first dressed, and turned in equal parts towards the two adjoining drills. The soil a sandy loam.

We have practiced the first mode, except that our crop was earthed with a plow; and we are persuaded, that had we left a plane surface, the crop would have been benefited—for three reasons, first, because by earthing with the plow the seed was too deep, 10 or 12 inches, and could not receive the genial inflence of heat and air; second, because the crop suffered more from drought in consequence of the sharp ridges into which the surface had been moulded, than it would if the surface had been left flat; and third, because the plow, by throwing a portion of the manure and sod to the surface, diminished the fertility of the ground. Our ground was partly in a moist swale, and partly on a sandy knoll. The crop in the swale gave at the rate of more than 600 bushels to the acre product; while that on the knoll, a severe drought having intervened, gave less than 300 bushels. The whole was highly manured.—From this experiment we infer, that in damp and stiff soils, it will be best to deposite the seed near the surface, and to earth the plants with the plow; and that where the soil is light and dry, the seed should be planted deeper, and the plants not earthed. By earthing the plants, it will be perceived, that double the surface is exposed to the drying influence of the sun, that there is where the ground is left flat. Ridges correct the defects of a wet soil, and they increase the evils of drought on a dry one.

Clover.—The practice, says our informant, is to mow clover only one year, as cattle food, and then to turn it under as food for the crop—thus ensuring the return to the soil of of a mass of rich vegetable matter. Clover is a biennial plant, and of course cannot be depended upon as a *green crop* after the second year; and as this there constitutes the main dependance for winter forage, the timothy not being grown, it cannot be depended on, after the second year, *for hay.* Hence clover is not only sown with small grains, but in the Indian corn grounds, at the last dressing of the crop—the corn not being hilled. The latter practice is found highly advantageous, and is being extended.

We can add our own experience in favor of sowing clover with small grains. It is our general practice; and we find we are doubly paid in the autumn feed, and quadruply paid in the feed and the manure which the green crop returns to the soil. The clover not only imparts fertility, when turned under, but its roots divide and break the soil while growing, and render it pulverous as they decay. In sowing clover designed for a green crop, and indeed in all cases where it is to constitute the only herbage, at least ten pounds of seed should be used on the acre. The thicker the plants the finer and better the herbage; the more abundant the roots, the greater benefit to the soil, both as it regards pulverization and fertility.—With regard to the utility of seeding corn fields, the only doubt we have, is, whether the clover would acquire sufficient strength to withstand our nothern winters. As it would be sown in July, about the time we put in our ruta baga, we are inclined to think it would acquire sufficient maturity. While on the subject of clover, we will state our belief, resulting from experience, that it may be profitably grown on stiff soils and marsh lands, providing they have been sufficiently underdrained—the only impediment to its growth on such soils being water upon the soil or sub-soil, within the reach of the roots.

Sheep in Corn.—Our informant states it to be a good practice to *turn sheep into the corn fields,* after the last hoeing in July. They will not eat or injure the corn, but will eat the grass which springs up. The corn affords the shelter which those animals require, and serves to protect them from the fly, which is vexatious, and often seriously prejudicial to them, during the hot weather of August. But for the high respectability of our informant, we should be disposed to doubt the utility of this practice.

Liming.—The use of lime for agricultural purposes in the valley of the Susquehannah, between the Blue Ridge and the Allegany, where our informant resides, is of recent introduction, but it is found highly efficacious, and is increasing. The common application on the alluvial flats is fifty bushels the acre. As lime-stone abounds in the neighborhood, it is sold at the kilns at ten cents the bushel. It is burnt with anthracite coal, which is there bought at two dollars the ton. The process of burning is cheap and simple. A hole is excavated in the side of a hill, in the shape of an inverted cone, with an open passage from the base of the pit to the base of the hill, by which to ignite the coal when the kiln is filled. The pit is then filled with broken lime stone, and broken anthracite, intermixed; the top is well covered with sods and earth, and fire communicated below. No attendance upon the kiln is required, and in about eight days the lime may be drawn for use.

Ascending the valley of the Susquehannah, and above the Allegany range, we meet with no lime-stone till we pass some distance into the state of New-York. Hence this material, as soon as the facilities of water communication, which are begun, shall be completed, must form a prominent article of export from our state into the upper valley of the Susquehannah. The application of lime to the red sand stone formation is found to be particularly serviceable. As this formation extends with partial exceptions, from the Connecticut river to North Carolina, the publication of this fact may excite new attention to the subject. If our recollection serves us, this formation shows itself, according to Prof. M'Clure's geological map, twenty or thirty miles on Connecticut river, is seen to underlay the Pallisado rocks upon the west bank of the Hudson, emerges to the surface near New Brunswick, and occupies a district twenty to thirty miles broad, through West New Jersey, Pennsylvania, Virginia, &c.

From the Genesee Farmer.

The Knowledge of Insects.

The study of the science of Entomology with a view of becoming acquainted with destructive insects, it is well known has hitherto been little attended to. We are aware that much has been done by some intelligent cultivators in investigating their habits, but a great loss has been sustained by not bringing the *science* to bear upon their inquiries. Doubtless the chief reason of this neglect is, that its importance is not sufficiently seen and appreciated.

It is hardly necessary to go much into detail to prove that insects do a great deal of harm; the losses to the farmer and gardener are too frequent and extensive to admit of much doubt on this point. The wheat crop is destroyed by the Hessian fly, and the wheat insect or grain worm; Indian corn is cut off by the grub and wire worm; turnips are destroyed by a small fly or beetle; peas are eaten by the pea bug; fruit trees are stripped of their leaves by the orchard caterpiliar, or killed at the trunk or roots by the borer; or the crop of fruit is cut off by the curculio; and a host of other depredators are almost unceasingly at work lessening or wholly destroying the crops of the cultivator. Besides this, the rapidity of the increase of this multitude of enemies, renders them still more formidable. Insects multiply in numbers by their offspring to an extent which far surpasses any thing of the kind in larger animals. The miller or moth from the common orchard caterpiller lays several hundred eggs at a time, and this is also the case with a large number of others; and many produce several generations in a season, such for instance as the plant lice, one of which, as was ascertained by Reaumur, may produce 5,904,900,000 descendants during its life. The white ant, which, in the warmer parts of America, destroys whole buildings, lays sixty eggs in a minute, or at the rate of 86.000 a day.

Now, in order to know how to contend successfully with these legions of enemies, we must become acquainted with their habits, we must watch them through all their changes, and understand the manner in which the mischief is committed. With some previous knowledge of the science of Entomology, we may commence this inquiry with incomparably greater advantage, than we could were we to do it with the whole field unmarked or unknown before us. For we would then have the benefit of the labors of those who had preceded us, and the result of those labors arranged, as in the dictionary, for our use. Should a man attempt to acquire a full knowledge of insects, without the assistance of others, "he would need the eyes of Argus,—the patience of Job,—and the years of Methuselah." The observations of the many who have passed their lives in this study, have been the means of collecting a body of facts, which may be learned in a short time from the works in which they have been published, while without the assistance of them a man might spend his whole life in vainly attempting to obtain a knowledge of those facts.

Many persons are ignorant of the fact, that most insects pass through four distinct states, or stages of existence, the egg, the caterpillar or grub, the pupa or chrysalis, (the dormant state,) and the perfect insect. To destroy insects effectually, we should be able to recognize them in all these different states, because in some they are more easily destroyed than in others. We generally attack them in that state in which they commit the injury, but this is not always the best way of preventing their attacks. It is in the second stage that they generally do the most mischief, but it is frequently much easier to destroy them in the egg, or to destroy the parent or perfect insect before it has laid them. This we can only do by being able to recognize them. The orchard caterpillar is familiar to almost every one, yet few are acquainted with the appearance of its eggs, or with the yellowish brown miller that lays them; yet it is far easier to destroy a small group of eggs upon the branches, than a large nest of devouring caterpillars which every group of eggs produces.

Absurd practices are sometimes pursued from an ignorance of the manner of the changes in insects. "In Germany," according to Kerby and Spence, "the gardeners and country people, with great industry, gather whole baskets full of the destructive cabbage moth *(Noctua brassicæ)* and then bury them—which is just as if they should endeavor to kill a crab by covering it with water—for many of them being full grown and ready to pass into their next state, which they do under ground, instead of destroying them by this manœuver, their appearing again the following year in great numbers is actually facilitated. Yet this plan, applied to our common cabbage caterpiller, which does not go under ground, would succeed." Another instance. A gentleman walking with his friend on a farm in Yorkshire, England, observed several patches of dead grass in a field, and in the middle of each patch a stick was stuck up with a bunch of rags on the top. He at once knew that the grub of the cock-chafer had eaten the roots of the grass, which being pulled up by the rooks in order that they might destroy the grubs, these birds had been mistaken by the tenant as the cause of the mischief, and the rags were placed to frighten them away, though by destroying the grubs they were saving his meadow. As a contrast with these practices, we may mention one of success arising from careful scientific inquiry. When the timber was found to be perishing in the dock yards of Sweden, the King applied to Linnæus to discover a means for preventing ii. He accordingly discovered the insect which caused the mischief, and ascertained the time when it laid its eggs; and by sinking the timber during that time under water, it was saved from further injury.

It is true that a great number of destructive insects which trouble us, are undescribed. and their habits not pointed out in any existing works on Entomology; but a small knowledge of this science will enable us readily to determine the family and the genera to which they belong, and furnish a very useful clue to their habits, as all insects belonging to the same genera, have a greater or less

degree of similarity in this respect; and this knowledge will sometimes prevent gross mistakes. Some of our readers will doubtless recollect the case of the discovery being announced through one of the first scientific periodicals of this country, that the Hessian fly was a species of the genus Aphis, (plant louse,) which the writer had determined by witnessing the change from the grub to the perfect insect. The slightest kuowledge of the science, and of the two genera to which the Hessian fly and the plant lice respectively belong, would have taught him his error, and that it was occasioned by a want of scientific precision in the experiment.

But even where observations are correctly made and important results determined, a great loss is frequently sustained by the insects in question not being described with sufficient distinctness to avoid confounding them with others. This loss can only be prevented by the knowledge of their distinctive characters, which the science alone teaches. We have sometimes been exceedingly puzzled, in some detailed accounts of the habits of insects, or modes of destroying them, to know what particular species were intended. Perhaps the whole description may be, "a two winged green fly," when there are hundreds of kinds to which this would apply, — or "a small black fly," to which the same remark would apply; the "common caterpillars" is noticed and the way of preventing its ravages pointed out, when there are a large number of caterpillars, not only very common, but destructive;—sometimes however the description may be more minute; but then the characters given, may be common to a large portion of the whole class of insects. These evils can only be prevented by an attention to the science of Entomology, which enables us at once to seize on the *distinctive* characters of an insect, or those few and clearly defined marks, which enables us at once to distinguish it from all others. And if all the observations which have been made in this country on this minute but formidable class of enemies, had been directed by the light of science, and each depredator distinctly pointed out (if the scientific name be not known) by a clear description, an invaluable body of useful facts would have been collected, where there is now but an unintelligible mass of confusion.

Silk Culturist.

From the Silk Culturist.

New Cocoon Frame.

We are much pleased with the new cocoon frame described in the following article, and have no doubt of its answering a valuable purpose. The only objection we can discover is the expense attending it; but if this can be overcome by an increased product of silk, of which the inventor has no doubt, we think it will be considered an important, if not an indispensable part of the furhiture of a cocoonery. The cocoons in the sample of the frame accompanying the communication are beautiful and manifestly covered with much less floss, than those made in the ordinary manner.

New London, July 19, 1836.

F. G. Comstock, Esq.—Dear Sir—Feeling desirous to contribute what I can, towards improving the growth and culture of the white mulberry tree and the silk worm, I am induced to send you a sample of a new kind of cocoon frame, having myself never seen or heard any thing of such an one before. This is one which I invented, after some reflection, and I find it on a small scale to answer completely all the purposes of its intention.

By the little model filled with cocoons herewith sent, you will readily perceive its intention and uses: but as the holes in that are bored with an inch bitt, which on examination I find too large, (as the worm in that makes too much floss) I have sent you the draft and explanation of one on the accompanying sheet, with the holes only 7-8 of an inch. It is evident the holes should be no larger than that the worm can nearly fill them with his cocoon. The object in point of the size of holes is to turn as much silk into a windable cocoon as can be instead of letting the worm spin floss; and I think this frame does it. By an examination of the sample and draft you will be able to judge of its merits, and if you think it worth a place in the 'Silk Culturist' you are at liberty to publish it. One word more as to the expense of the frames. If by using this frame each cocoon will be made to nett half a grain more of wound silk than those spun in the old method (and I have no doubt it will) we have a gain of 72 grains of wound silk to every square foot, each year, these at $4 a pound for the silk, are worth 6 1-2 cents and a fraction more—rather more than enough to pay for the frame every year.

I am sir, your ob't. servant,

Eph. Cheesebrough.

COCOON FRAME.

Take a piece of 1 3-4 inch pine plank, and with a very keen seven-eights of an inch centre bitt bore a hole through the plank in every square inch of its surface, making 144 holes to every square foot. The cores between the holes serve to hold the wood together and support and keep the plank from splitting. Nail an iron hoop all around the edge, and it cannot split. Insert in the four corners legs four inches long, and occasionally, through the middle, pins of the same length, between the holes, for the worms to crawl up on. When it is necessary to use it, set it over the worms on their shelf, and when sufficiently filled, remove it to the side of the room; and if another is wanted, put it into the place from which the full one is taken.

The advantages of this frame are numerous and important. 1st. The holes being only about the size of a cocoon, no room is left for the worm to spin floss, but nearly all the silk is converted into the cocoon that will reel.

2d. Being placed so near the worms they ascend into the holes much easier than they could crawl up bushes, and therefore are on the spot almost in the moment they want to spin.

3d. The worms are entirely prevented from making dupions, or double cocoons, which are worth only half price.

4th. If, as is always the case, some late or lazy worms should be left on the shelf or table, they may easily be taken up by the hand and dropped into the empty holes in the frame, where they will soon begin to spin.

5th. The use of this frame keeps the worms not yet risen from the table much cleaner, as the frame when nearly filled may be removed, and the worms left behind are freed from the inconvenience of being soiled by those already risen.

6th. The floss or waste silk, (as there will always be some,) will be much cleaner, being entirely freed from dirt, or broken bits of leaves.

The frame is convenient and very durable.—Banded round with an iron hoop well nailed on, it will last for ages.

The frames on a large scale bored by a machine, will cost from five to six cents a sqnare foot, and the saving in the quantity and quality of the silk, will soon pay all the expenses of the frame.

The six cocoons in the sample of the frame sent herewith are in one inch holes, which are evidently too large, seven-eighths or even three-fourths inch holes are better.

Chinese Mulberry.

1. What is the time for removing seedlings to the cellar, and would you advise taking in both Chinese and White?

2. With respect to the plants, the growth of this year from roots, ought they to be removed; or, if not, what is the way you would guard them from the winter frosts?

3. In taking off cuttings, would you cut them from plants of the first year's growth from seed, and what is the right time for taking them?

4. How do you keep cuttings during the winter?

Answers by the Editor.—1st and 2d. The time of taking up seedlings must depend upon the state of the weather, care being had that they are removed before the frosts are severe enough to destroy them. Our advice would be to secure the Chinese in season, and let the white remain protected by throwing horse and other coarse manure upon them, in the manner proposed in answer to the same inquiry by a Virginia correspondent in another column.

3d and 4th. Cuttings should be taken from the last year's growth, the wood of the previous year, however answers well for that part of the cutting which is below the surface of the ground. They should not be taken from the tree until spring, unless they are to be sent off in the fall—in that case they should be covered with earth or moss to prevent their drying up. When they are to be sent a considerable distance they should be packed in boxes.

1. Do you think it advisable to water the shoots after they are laid down, or the cuttings—if so, how often, and what time of day?

2. Will it be best to take up the old roots with the layers in the autumn and at what time? How late will it answer to lay down shoots? Will it be prudent to feed the next season from the trees which I shall probably have from my 100 Chinese trees set out the present season?

Answers by the Editor.—1. Keeping the earth moist has a tendency to cause layers and cuttings to strike roots more readily and also forces them to throw up shoots more rapidly of a more thrifty growth. Watering in seasons of drought is indispensable to the growth of layers and cuttings, and may be to their life—at any rate it should not be neglected. In all our attempts to aid nature in her works, we should as far as possible, conform to her laws, and be careful not to frustrate her economy. In promoting the growth of plants she gives them alternate seasons of rain and sunshine—but when she bestows the former she invariably withholds the latter—and in this we should be careful to imitate her example. Plants and trees of all kinds should be watered before the rising of the sun, or after its setting or it may prove injurious rather than beneficial. Rain or running water is the best for this purpose; but, if it cannot be procured, well water, after being exposed to the sun several hours, will answer. The frequency of watering depends entirely on the dryness of the weather, of which, the cultivator, for the time being, will be the most competent judge. He should, however, always remember to keep the earth moist. Shading them from the direct rays of the sun will also have a tendeucy to make them live, as well as promote their growth.

2. We have plants of the Morus multicaulis which endured the last two severe winters; but as they are of great value, and as every cultivator is desirous to multiply them as fast as possible, we should advise their removal to the cellar, before the hard frosts of autumn. Layers ought not to be laid down later than the first or middle of July, if good trees are intended to be propagated. The foliage of the Morus multicaulis may be plucked the first year without injury to the tree.—*Ib.*

Mechanics' Department.

Description of Cochran's Rifle.

The invention of Mr Cochran is adapted to every species of fire-arms. The articles at present being exhibited by him at the Fair, are a model cannon, similar to that experimented upon before the Turkish Emperor, and a rifle complete, which we shall now proceed to describe. He has fired this rifle twelve hundred times, five hundred of which discharges were in rapid succession, and without producing any expansion whatever in the chambers of the cylinder, or giving it a greater temperature than one hundred degrees of Fahrenheit. As many as two thousand discharges are required before the rifle will have been properly tested after the rule of the war department. Mr Cochran is ready at any time to fulfil this complement and go beyond it. This afternoon he will fire it at Niblo's Garden five hundred times in succession. The cylinder is a solid piece of iron revolving in the plane of the barrel, and occupying a position directly at the base of the barrel which it is in close contact with. The dimensions of the cylinder are in diameter about four inches, and in thickness seven-eighths of an inch. There are in this one nine epen chambers for the charges, which chambers are perforated upon the periphery and converge like the radii upon the centre. The cones on which the percussion caps are placed form another series or radii concentrate and within the circuit of the chambers—a solid metallic partition dividing all the caps from each other. Each cone for the cap communicates with its appropriate chamber, and opens in the centre of the chamber, so that the whole charge of powder is ignited at once, by which the explosion of all the powder is made in one half the time of ordinary rifles, and therefore so much the more force given

to it, and consequently a much less charge is required—the weight of the charge being only *one grain and a half.*

As each chamber in its revolution comes in an exact line with the tube of the barrel the cock strikes the percussion cap and the explosion takes place instantaneously. The chambers, as they successively come into a line with the barrel in the revolutions of the cylinder, are momentarily retained firm in this position by the *regulating dog* connected with the cylinder where it joins the breach, and the pin of which dog catches in the small perforations made at equal distances for its reception. Nor can the cock strike the percussion cap until it is in exact position, for if the chamber is not in its proper place, the socket into which the hammer of the cock falls, has presented to it only the metallic partitions between the cones, and therefore on striking these, no explosion can take place. Nor can any accident happen from explosions of the other chambers contiguous to the one in connection with the barrel. Such an accident never did happen with this rifle, and if it should the direction of the chamber is such that their charges would do no mischief. Nor can the flash of the powder in the chamber in a line with the tube of the rifle be communicated to the other chambers, as the joint of the cylinder where it comes in contact with the barrel is so close that it is air-tight and will not permit of such extention of the igni-, ted powder. The charge of one grain and a half of powder requires a size of ball of fifty to the pound, and the force is sufficient to perforate eight boards each of one inch thickness, at the distance of sixty feet. The arrangement of the ball is another beautiful and ingenious invention. Their diameter is exactly fitted to the chamber, but larger than the diameter of the tube of the barrel by an increment equivalent to the depth of the spiral creases on the inside of the tube.—So that no patch is required as in other rifles, for it is forced into the tube of the barrel and exactly fitted to it by becoming compressed into a cylindrical shape, and its sides grooved by the creases of the barrel, whereby it it kept firmly in its course and moves steadily and with such precision and so closely wedged that there is no *windage* can get before the ball and give an irregularity to its motion—a serious inconvenience to which all other rifles are liable. The aim of Mr Cochran's rifle therefore is always deadly and sure.

By this arrangment there is another additional power acquired, for you have the entire force of the charge behind the ball until it leaves the muzzle, and in the same proportion is the velocity augmented, and, therefore, a less charge required on this account, as well as on account of the manner in which the percussion caps communicate with the chambers, as already stated.—The creases of the barrel, as we before said, keep the ball exactly in its place throughout its whole course to the muzzle whereas the patch, always used in ordinary rifles, is constantly liable to tear, which causes the irregularity in the ball's motion, and defeats the very object for which rifles were intended. The manner in which the percussion cones communicate with the middle of the chambers, causes the powder to explode in one half the time it would if the ignition took place at the end of, and posterior to the chamber.

As an evidence of the accuracy and effectiveness of this rifle, Mr Cochran related a bearrhunt, in which he took part, a few days since, on the Moose Mountains, in his native state of New Hampshire. He fired at the animal with the rifle now at the Exhibition, and, lodged nine balls in his brain, while he was under full way, at the distance of some four or five rods from him. The bear was brought to the ground, and the nine balls recognized and identified from the others lodged near them, by the grooves made in them by the creases of the tubes, and by their cylindrical shape. His brother sportsmen who had, until then, deemed themselves in possession of good sporting-pieces, expressed themselves in raptures at the superiority of their young countryman's magic-rifle.

Another remarkable property in this rifle is, that it has not the least recoil whatever, so that there is not the slightest jar or irregularity in the direction.

The rifle will be fired at Niblo's five hundred times in succession this afternoon. The patent right for the rifle and pistol, for the United States, has been sold by Mr Cochran to the trustees of a company in this city, for THREE HUNDRED THOUSAND DOLLARS. Richards & Richardson, No. 41, South-street, are the Agents for the company, and have a large manufactory at Springfield. Massachusetts, and are selling the rifles faster than they can make them.

Colonel Bomford, at the head of the ordinance department, United States' Army, who was present at the Fair, was so much pleased with Mr. Cochran's rifle, that he ordered him to make one, and bring it to Washington for experiment.

Summary.

Internal Improvements.—Hon. Isaac Hill, Governor of New Hampshire, in his recent Message to the Legislature of that State, recommends that the portion of the Surplus Fund, falling to New Hampshire, be loaned to Companies, at a rate of interest not exceeding six per cent, for the purpose of constructing Rail Roads. He describes three great routes, which he thinks, if rail roads are constructed upon them, will prove of great public service and convenience. The interest on the sums loaned for this purpose, which shall accrue to the State, he would have devoted to the payment of the State tax.—*Gospel Banner.*

Times Change.—We recollect when the U. S. *imported* all our cottons and *exported* large supplies of bread stuffs for the famishing population of Europe. Now we *export* cottons at a large rate, and *this* year we *import* great quantities of bread stuffs.

We have seen vessels loaded at our wharves with wheat, corn, rye, &c. for a market abroad; and this year we have seen more coming up river freighted with the same articles for the consumption of our *thriving* farming population.

Maine can raise her own bread—aye, and some to spare her neighbors if she will; but the mischief is, there are too many who think it more respectable to live without work. The proportion between the producing classes and the consumers, is on the wrong side for cheap prices or—good morals. So we think. *Ib.*

A Tipperary Boy.—The Colonmel Advertiser, an Irish paper, tells a story of Martin Power, a Tipperary drinker, which is a little too marvelous. This man, who has been called a "sky farmer," and is seventy-two years of age, has, on an average, drank 30 glasses of whiskey per diem, for forty years. On one occasion he drank 23 pints of cider in less than an hour.—On another day he drank to himself four quarts of raw whiskey, and recently he became 'a case' for his Worship the Mayor, having taken according to his own admission, 40 glasses, an access of ten beyond his usual complement. He was never known to be ill an hour, or in bed after four o'clock in the morning. Calculating the 30 glasses a day for fifty years, the total will be found to be 130 hhds. 23 gallons, about as much as would float a man of war.

A worthy clergyman in England died a few years since, and by his will bequeathed the principal part of his property to his daughter, on condition that she dressed with more decency than she had been accustomed to. The testator expressed his wishes in the following words:

"But as my daughter Anne—hath not attended to my admonitions, respecting the filthy and lewd custom of dressing with naked elbows, my will is, that in case she persists in so gross a violation of female decency, the whole of the property devised by me as aforesaid, and intended as a provision to her fufure life, shall go to the oldest son of my sister Caroline—and his heirs. To those who may say that this is severe, I answer, that an indecent display of personal habiliments in women, is a certain indication of intellectual depravity.

Potato Bread.—The best of bread may be made by mixing one-third potato with two-thirds flour. Our fair readers, at least those of the 'working-men's' sort, will understand us when we advise them to select the dry or mealy varieties of potato. Boil them or steam them, leaving them as dry as practicable; peel them, rub them through a coarse wire sieve, and work this product into the flour in the same manner that 'shortening' is usually mixed in. The best of all pence are the pennies we save. And this little contrivance brings flour down to the old price.—Brattleboro' Dem.

A splendid carriage, manufactured for General Jackson, at Amherst, Mass. was burned on the road near Washington a few days since, in consequence of a spark having insinuated itself under the tarpaulin, with which it was covered, by way of greater caution in conveying it safely.

Steam Power Superceded.—Mr U. Emmons, of New Jersey, has invented a locomotive for rail-roads, which he says will go at a great rate by a *spring power* without the use of steam, and he is to make the experiment in the village of Freehold, on the 7th, 8th, 9th and 10th of Dec. A number of gentlemen have examined his machine, and express the conviction that it will be successful. We *hope* so.—*Cou. & Enq.*

Distressing. — A deaf and dumb man was brought to the New York Alms House, who communicated by signs that he was wrecked in the Bristol, and that he had many friends on board who all perished. He had a little money about him, which he said was taken from the pockets of one of the drowned passengers.

A large estate in petticoats.—John Gowan of New York, who was lately tried for stealing one hundred dollars, was proved to have had *twenty-seven wives;* and he told his honor that if he would let him off, instead of sending him to Sing Sing, he would get twenty-seven more.

Profits of a law-suit.—A suit about a cider-barrel, worth 75 cents, which has been a year in court, was recently decided by the common pleas of Boston, in which the fees and expenses were upwards of $150.

Marriages.

In New-York city, on Sunday evening, the 4th inst. by Rev. Dr. Hawkes, MR. CHARLES L. THOMAS, merchant, of Tremont, Illinois, and formerly of this town, to MISS EMMELINE G. WARREN, daughter of Mr. Edmund Warren of the above city.

At Nantucket, Mass. Mr. CHARLES H. Fisher to Miss Louisa Codd.

Sly Cupid—Poets so relate,
Was once an angel god;
So now—with Fishers hearts for bait,
He sometimes hooks a Codd.

Deaths.

In Bangor, Nathaniel Haines, Esq. late Editor of the Eastern Republican.

In Portland, Mr. Zachariah Nowell, aged 87—Mr. Moses Richardson, aged 68.

In Poland, Mr. Jonathan Emerson, aged 72—Miss Rosina, daughter of Hon. Josiah Dunn, aged 17 years.

In Kennebunk, Mrs. Lucy G. consort of Doct Burleigh Smart, aged 33 years—widow —— Hill aged 88.

BRIGHTON MARKET.—MONDAY, Dec. 5.

Reported for the Boston Advertiser.

At market, 430 Beef Cattle, 90 Stores, 1320 Sheep, and 150 Swine.

PRICES—*Ceef Cattle*—An advance was effected, as will be perceived by our quotations, viz: a few extra at $6,50 a 6,75; first quality at 5,75 a 6,50; 2d do. $5 a 5,75; 3d do. $3,75 a 4,75.

Stores—A very few sales only were effected.

Sheep—Prices have advanced. Lots were taken at 2 25, 2 75, 2 88, 3, and $3 50.

Swine—Sales quick at an advance. A lot sold to peddle at 8 and 9; at retail, 8 and 9 for large, and 9 and 10 for small.

Notice.

The subscriber having contracted for the support of widow EUNICE NORCROSS, a town pauper, of Fayette, for one year from the 7th day of last March, and having made suitable provision for her support at my house, but the said pauper refuses to accept of them. All persons, therefore, are forbid harboring or trusting her on my account, as I shall pay no debts of her contracting after this date.

SAMUEL HERSEY.

Fayette, Nov. 26, 1836.

The New-Yorker—Quarto Form—New Series.

PROSPECTUS OF THE SECOND VOLUME.

The Publishers of the New-Yorker commenced in March last, a weekly edition of their publication in quarto form, and made, as they thought, ample provision for supplying as great a number of subscribers as their most flattering hopes led them to believe would patronize the work under its then new arrangement. They have been deceived—agreeably so, in their calculations, inasmuch as the favor shown to the publication rapidly absorbed the whole edition, and constant orders are received for copies, which the Publishers have been unable to supply. With a view to obviate this difficulty, and meet the wishes of the many who desire to patronize the work, the Publishers have resolved to neutralize the blank in the current volume, by changing so far the present arrangement, as to furnish TWO volumes a year, in lieu of one, as stated in the original prospectus.

On the Twenty-Fourth of September next, therefore, will be issued the first number of a new series of the Quarto New-Yorker, or *No.* 1 of Vol. II. thus affording to new subscribers an opportunity of beginning with a distinct volume, entirely unconnected with the one preceding, while our original patrons will be advantaged in receiving their copies in a form calculated better for binding in a convenient volume, than under the old arrangement. The distinguishing line between the old and new Series will be indicated at the head of the first page of every number; and as no change is contemplated in the size or quality of the work, no inconvenience can result to those who have taken it from the commencement; while on the other hand, it presents the features of an entirely new publication to those who may date their subscription with the new volume.

Under this improved arrangement, the whole edition for one year will embrace two semi-annual volumes, each containing four hundred and sixteen pages of original and selected matter such as has heretofore been presented to its readers, and which, it is hoped, has been of a character to meet the full approval of the literary and general tastes of the reading community. The two volumes will comprise eight hundred and thirty-two pages, fifty two of which will be Music.

The aim of the Publishers is to present in compact form a literary and miscellaneous journal adapted to the intellectual wants of their readers; and from the very flattering success that has thus far rewarded their efforts, they indulge the hope that the New-Yorker will continue to receive that share of public favor which it has ever been their study to merit. The expression of cordiality and good feeling manifested by their friends and cotemporaries affords gratifying evidence that the character of their journal has been based upon a correct foundation, and it would therefore be irrelevant to say aught regarding their future intentions, further than to express their determination of furnishing a sheet which will bear respectable criticism when compared with any of the periodicals of the day of a similar character.

To those who propose patronizing the work, promptitude in forwarding their orders is earnestly recommended, as from present appearances it is believed that, large as the edition is which will be printed, still the numerous orders daily received for it, will quickly put it out of the power of the Publishers to supply back numbers, and they will not warrant the entire volume to those who may come in late with their subscriptions. Annexed are the conditions which must be strictly adhered to, as the line of conduct laid down will govern the transaction of business between the publishers and patrons.

Conditions.

The Quarto New Yorker will be published every Saturday afternoon on an extra-imperial sheet of the finest quality, comprising sixteen pages of three columns each, and afforded to its patrons in city or country, at THREE DOLLARS per annum, payable inflexibly in advance. Orders from a distance unaccompanied by a remittance will necessarily remain unanswered. Any person sending 5 dollars positively free from postage or other charges will receive two copies for one year, or a single copy for two years, and in the same proportion fo a larger sum. The few who may desire to take the folio edition for immediate perusal and the Quarto for binding, will be entitled to receive both for four dollars and fifty cents in advance. We will cheerfully preserve their files of the Quarto for binding, for any such one who may desire it.

H. GREELY & CO. 127 Nassau-st. New-York.

*** Editors of papers exchanging with us will please give the above an insertion.

High School.

The winter term of MR. JEWETT'S SCHOOL, for young Ladies and Gentlemen, will commence, at the Masonic Hall, on the first Monday in December next.

Instruction will be given in Orthography, Reading, Writing, Geography, Grammar, Arithmetic, Ancient and Modern History, Rhetoric, Logic, Algebra, Geometry, Book-keeping, Nat. Philosophy, Chemistry, Astronomy, Navigation, Surveying, and in the Greek and Latin Languages. Weekly exercises in Declamation and Composition will be required.—Tuition in the common English branches $3,50; other branches $4,50 per quarter.

Winthrop, Nov. 23, 1836.

Selling Cheap for Cash,

Buffaloe Robes—Fur Caps—Boy's Hair Seal do Ladies' Black Silk Plush Bonnets—Drab do. newest fashion—Plain Castor Hats—Brush do.—Drab, Otter and Beaver do.—All other kind of Hats usually worn in the country, at wholesale or retail for cash or credit as may suit purchasers.

ALSO, TO LET OR SELL, the well known *Tavern Stand* in Winthrop Village, now kept by Dr. E. C. MILLIKEN as a Temperance Tavern.—Possession given 8th of April next. Terms made known by application to the subscriber.

DANIEL CARR.

Winthrop, Nov. 15, 1836.

Advertisement.

I have a BOAR from the Mackay Sow of Sanford Howard's, and the Haines Boar that took the premium in 1835, for the use of Sows.

ELIJAH WOOD.

Nov. 18, 1836.

Satin Beaver Bonnets.

This splendid article having been universally worn in Europe, and so much admired by the Ladies of New York, Boston, and Newburyport, the Ladies of Winthrop and its vicinity are invited to call at the shop of the subscriber, opposite the *Winthrop House*, in Winthrop Village, and examine his stock of Ladies' and Misses' *Satin Beaver Bonnets*, of an entire new description,—which, for beauty, style and quality, far surpasses any thing of the kind ever offered to the public in the County of Kennebec.

The Incidental Committee of the Kennebec County Agricultural Society, at their last Show and Fair, says:—"We examined a number of Satin Beaver Bonnets, and wishing to encourage the production of such articles as will shield the fair heads of the Ladies from the rude attacks of cold winter—we recommend to the manufacturer of this article (Mr. Thomas Newman) a gratuity of one dollar."

He has also on hand and for sale, a large assortment of Satin Beaver and Fur Hats—Caps, &c.

T. NEWMAN.

Winthrop, Nov. 25, 1836.

Notice.

The subscriber would inform the public that he will keep at his farm this winter the old Bedford BOAR which took the first premium at Winthrop in 1835. The subscriber believes it may be safely asserted that said Boar is not excelled in valuable properties by any other in the County. He is from the celebrated stock sent over to this country as a present to Gen. Washington by the Duke of Bedford, and subsequently kept and recommended by Dr. Fisk and Gov. Lincoln of Worcester. Mass.

The progeny of this animal has been highly approved by all who have seen them, and the specimens shown at the late Show at Winthrop by the subscriber, and by Sanford Howard of Augusta, attracted the favorable notice of the Committee on Swine, and of the spectators in general.

JOSEPH W. HAINS.

Hallowell, 12th mo. 9th, 1336.

Notice.

The subscriber has a first rate BOAR, of the Mackay, Bedford and Berkshire breed, which he will keep for those who are desirous of improving their breed of Swine. JOEL CHANDLER.

Winthrop, Nov. 7, 1836.

Winthrop House.

The Subscriber informs his friends and the public, that he has purchased that well known Hotel in Winthrop Village, formerly kept by A. M. SHAW, and more recently by J. G. W. COOLIDGE; where he will be happy to wait upon them whenever they shall call. The House has undergone several alterations and repairs, and is now fitted up in good order.

He pledges himself, to all Travellers, that they shall find his larder well stored, and his table in the best style.

Plenty of Hay and Provender, and a faithful and attentive Ostler, will be always 'on hand' at his stable.

Every attention paid to the Traveller, to make him comfortable and satisfied.

PELEG BARKER.

Winthrop, Nov. 15th, 1836.

Tri-Weekly Age.

The Publishers of the Age propose to issue a paper three times a week during the next session of the Legislature. It will be printed on the half of a super-royal sheet in the usual form, and will contain about the same amount of *reading matter* as has been heretofore furnished by two numbers of the daily Age.

It will contain, in addition to reports of Legislative debates and proceedings, the news of the day, a synopsis of Congressional proceedings, and the original matter which appears in the weekly paper. It is intended that the reports of proceedings shall be full and accurate, and the sketches of the debates as complete and perfect as any that have been published at Augusta. The price of the Tri-Weekly will be *One Dollar* for the Session. To those of our regular subscribers who do not discontinue the weekly paper during the Session, the Tri-Weekly will be charged at seventy-five cents. It will be published on such days as will accommodate our subscribers on the different mail routes.

Any person procuring six subscribers and forwarding the amount of their subscription shall be entitled to a copy of the paper.

☞ All subscriptions from a distance must be paid in advance. The money can be remitted by the Representatives from the several towns at the meeting of the Legislature.

Augusta, November, 1836.

Greenleaf's Patent Cheese Press

This Press is a very simple, cheap and efficient contrivance. Its principal advantage is, that its power is progressive—being sufficiently light at first, and increasing as the curd, by becoming more compact, presents a greater resistance. In this respect it is believed to be superior to every other Press now inuse. It has been introduced into several of the States, and has everywhere received the approbation of judicious manufacturers of cheese.

Persons wishing to purchase exclusive rights for Counties or towns will please apply to the subscriber, who will give immediate and profitable employment to a number of active trustworthy agents

MOSES MERRILL,
Joint Proprietor and General Agent.

Andover, Maine, March 10, 1836. 6m7

Stoves & Fire Frames.

The subscriber hereby gives notice that he continues to carry on the Stove, Hardware, Tin, Copper, and Sheet Iron business at the stand formerly occupied by Richards & Norcross, opposite the Augusta Hotel, and keeps constantly on hand a good assortment of Stoves;—among which are the Propheey Cook Stoves, which are highly approved of by those who have used them, being well calculated for saving of fuel and labor; the Premium Cook Stove, of similar form and various sizes; Wilson's, James', Low's, and Gothic Cook Stoves. Fire Frames, of various sizes and patterns; superior Frames for Kitchens and Parlors; also *Grates*, Franklin Stoves, and Close Stoves suitable for Meeting Houses, School Houses, and Shops; Sheet Iron Stoves, Funnel, Sheet Iron, Zinc, and Copper, Cast Iron Pumps, Oven and Ash Mouths, Boiler Mouths with grates, together with a variety of house-keeping articles, such as Shovels and Tongs, Fire Dogs, Britannia Ware, Lamps, Candle Sticks, Waiters, Knives and Forks, of all qualities; Spoons, Sauce Pans, Fry Pans, Tea Boilers, Sad Irons, Bellows, Brushes, and various other articles. He invites those who are in want of any of the above articles, to favor him with a call, where any of the above articles can be purchased as cheap as elsewhere. He intends hereafter to keep a full assortment of custom made Tin Ware, of the best of stock. House Gutters and Conductors, and every article called for will be furnished at short notice.

EDMUND D. NORCROSS.

Augusta, Sept. 23, 1836. 34tf.

Half Blood South Down Lambs.

The subscriber will receive at his farm in Hallowell, a few Ewes to put to the above lambs,—at one dollar per Ewe.—As he purposes to limit the lambs to five ewes each,—and has already 14 engaged, early application should be made for about 40, the number that remains, that he can receive.

CHA'S. VAUGHAN.

October 31st, 1836.

To the Legislature of the State of Maine, for the year 1837.

THE undersigned petitioners, respectfully request, that they with their associates, may be incorporated, with customary powers and privileges, by the name of the *MAINE RAILROAD COMPANY*, for the purpose of constructing and maintaining a Rail Road from Bangor, through Augusta, Hallowell, Gardiner and Portland, to New Hampshire line.

The utility and importance of Internal Improvements of every variety and character, to a people who study and pursue their true interests, are too evident to be controverted. In every enlightened community they have been considered as inseparably connected with its prosperity. But the pre-eminent advantages of Rail Roads, especially at the North, may now be considered as established by the unerring test of experience. They unite cheapness, celerity, certainty and safety in the transportation of commodities and passengers, and may be used with but little interruption through the year. As to all the purposes of beneficial communication, in war as well as in peace, they are admirably adapted to the end for which they were designed. They in a measure annihilate space—bring distant places near, and render valuable and bring into cultivation lands lying remote and otherwise valueless. They essentially aid the interests of the laborer, farmer, mechanic and indeed all the operative and industrious classes of the community—affording new facilities for transporting to market the products of their labor. All that is taken from the expense of transportation is added to the value of the article transported; and by cheapening the rate of carriage many articles are rendered valuable which would otherwise be worthless.

As yet, little in the way of Internal Improvements of any kind, has been attempted in Maine. In this respect many other States are far in advance of us, and have gained to themselves inexhaustible treasures of wealth as well as renown, and have set us examples worthy of imitation. Some of them have undertaken and accomplished the work themselves — others have encouraged and lent a helping hand to individual and corporate enterprise.

The situation of Maine at this time is peculiarly favorable for the encouragement of every public interest. Free from debt, or nearly so, and rich in resources—in the virtue, intelligence and indomitable spirit of her citizens, should she see fit to achieve a work like the one here proposed, or a portion of it, she could have no difficulty in providing the means for its accomplishment as fast as they would be required.

If the Legislature should consider this project, embracing a work running almost from one end of the State to the other, nearly upon the line of the Atlantic and sufficiently distant therefrom to be out of reach of the enemy in time of war, in the same point of view, that we have regarded it, and should unite with the petitioners in the opinion, that the general prosperity is intimately and essentially involved in its prosecution, they must come to the conclusion, that *now* is the proper time for its commencement—*now*, while land and labor, and materials are comparatively cheap, and all the means necessary for its accomplishment are within the power of the State and of its citizens.

And here your petitioners would ask, what object of a public nature can be presented, more appropriate for the application of the portion of the Surplus Revenue of the General Government falling to this State—or what object can be found combining so extensively and generally the interests of the whole mass of the community. Places there are indeed which would enjoy more immediately, and in a higher degree, the benefits of such a work; but its advantages would most assuredly, and in no parsimonious measure, reach and enrich every class and every section. And can any object be sought out where a safe investment of the surplus fund could be made—the immense and fast increasing travel and transportation, would insure its productiveness—and if a return of money should be required by the General Government, it would probably be in time of war, when the travel and transportation would have increased to such an extent as to render it the most desirable stock to Capitalists in the market, at the same time that Bank and other stocks would have decreased, and the State would thus be enabled to discharge their liability to the General Government with a fair prospect of reserving a bonus to themselves.

During the current season, Lt. Col. Stephen H. Long, U. S. Top. Engineer, well known throughout the Country for his experience and high qualifications for the service, under the direction of the Board of Internal Improvements, and employed by them, made a Recconnoisance of so much of the contemplated route as lies between Portland and Bangor, and it is understood that his report which will be made to the Board in season to be communicated to the Legislature at an early day of the session, will be highly favorable to its feasibility and cheapness of construction. To follow up to its accomplishment, a project so nobly begun by the Board of Interpal Improvements and so vastly important to the citizens of the State, is the great object of your petitioners, and they propose that their charter shall embrace as far as his reconnoisance extended, the route selected and recommended by Col. Long. Your petitioners believe every citizen in the community should have the privilege of subscribing for stock, and that the charter should be so guarded in its provisions that it shall not fall into the hands of individuals who have no object in view but to sell it out on speculation. If this application were intended to advance the views of individuals, or to foment the divisions of party—if it promoted the interest of the few, at the expense of the many—if its benefits were limited as to place, or fugitive as to duration, then might we expect it would be received with indifference and neglect; but believing the overflowing blessing from this fountain of public good, will be as extensive as the State, and as durable as time, they cannot but entertain a full and perfect confidence that the wisdom and patriotism of the Legislature will foster and cherish it. Your petitioners append hereto some provisions which they would he glad to have incorporated into their bill.

Reuel Williams, James L. Child, Daniel Williams, James W. Bradbury, John H. Hartwell. } Committee of Angusta.

Mark Trafton, Samuel Veazie, Thos. A. Hill, Edward Kent, Edward Smith, Amos Patten, S. H. Blake, Eben French. } Committee of Bangor.

Stephen Stark, David Brown, David Hunton. } Committee of Clinton.

Joseph Eaton, Amasa Dingley, J. R. Abbot, Abiel Getchell, Joseph H. Davis, } Committee of Winslow and Vassalborough.

Henry B. Osgood, Nathan Fowler, Milton Philbrook, Columbus Burrill, William Bryant, Thomas Conner, } Committee of Fairfield.

Be it enacted by the Senate and House of Representatives in Legislature assembled, That with their associates and successors be and they are hereby created a body corporate by the name of the Maine Rail Road Co. with power to locate, build and maintain a Rail Road from some point in Bangor, through Augusta, Hallowell, Gardiner and Portland, to some place at the Western line of the State of Maine with such branch ways as the Directors may deem necessary, and shall be entitled to all privileges and subject to all liabilities according to the Laws of the State of Maine, defining the powers of Rail Road corporations; and also with all privileges and subject to all liabilities of similar corporations.

Sec. 2. The Governor with the advice and consent of the Council shall appoint three commissioners who shall have the whole management of the corporation until the officers shall be chosen.

Sec. 3. It shall be the duty of the commissioners within twenty days from the passage of this act, to have books open (at least ten days) at proper places for subscription to the capital stock and give notice in all the papers in this State, two in Boston and one in New York.

Sec. 4. The commissioners shall have a Secretary who shall be sworn to the faithful performance of his duty to keep a record of the doing of the commissioners.

Sec. 5. If more stock is subscribed for than the whole number of shares in the capital stock, then the commissioners shall average the same; if less, then they may dispose of the same for the benefit of the corporation.

Sec. 6. All persons subscribing for stock shall pay five per cent at the time of subscribing, and at the closing of the books twenty per cent shall be paid in notes payable in four equal payments of three, six, nine and twelve months, the commissioners giving script for the same; said notes to be made satisfactory to the commissioners and when paid to be allowed for assessment.

Sec. 7. The President and Directors may borrow such sums of money as may be wanted to complete the work not to exceed fifty per cent of the capital stock, and a lien is hereby created on said corporation for said loan.

Sec. 8. When a majority of the stock is subscribed for and scrip issued, the commissioners shall call a meeting of the stockholders for the choice of officers and to transact such other business as may come before the meeting.

Sec. 9. The board of Directors shall consist of nine, three of which shall be appointed by the Governor.

MISS JOHNSON

Has recently received an assortment of the Satin Beaver Bonnets, (Grecian style) of a variety of colors—among which are—green, slate, drab, &c. and would respectfully invite the Ladies of Winthrop and vicinity to call and examine for themselves, at her shop near the Temperance Hotel.

Winthrop, November 30, 1836.

CAUTION!

Beware of Counterfeits!!

IN consequence of the high estimation in which Morrison's Pills of the British College of Health, London, are held by the public, it has induced an innumerable host of unprincipled COUNTERFEITERS to attempt imitations, under the deceptive terms of "*Improved Hygean Medicine*," "*Original Hygean*," "*The Morrison Pills*, signed by Adna L. Norcross," &c. &c. thus to deceive the unwary. In consequence of many persons being seriously injured by taking the *counterfeit pills purchased at the Druggists' Stores*, the Agent has taken the precautionary mearure of having an extra yellow label fixed on each package, signed by the Agent of each State, and by his sub-Agents. Take notice, therefore, that none of the genuine Morrison Pills of the British College of Health, London, can be obtained at any Druggist Stores throughout the World; the Drug Stores being the principal source through which Counterfeiters can vend their spurious pills.

H. SHEPHERD MOAT,
General Agent for the U. S. America.

As you value Health, be particular, none are genuine unless *signed* by Rufus K. Page, Agent for the State of Maine, on the yellow label, and can be purchased of the following Sub-Agents.

RUFUS K. PAGE, Agent for the State of Maine.

Davis & Chadbourn, Portland; Geo. Marston, Bath; N. Reynolds, Lewiston; Ransom Bishop, Winthrop; Wm. H. Britton, Jr, Livermore; Geo. Gage, Wilton; Joseph Bullen, New Sharon; Richard K. Rice, Foxcroft; J. M. Moor & Co. and Z. Sanger, Waterville; Blunt & Copeland, Norridgewock; E. H. Neil, Milburn; P. H. Smith, Belfast; F. & J. S. Whitman, Bangor; Timothy Fogg, Thomaston; Wm. P. Harrington, Noblesborough; Henry Sampson, Bowdoinham; Gleason & Houghton, Eastport; Benj. Davis & Co. Augusta; Jocob Butterfield, East Vassalborough; S. & J. Eaton, Winslow; Addison Martin, Guilford; Otis Follet, Chandlerville; Rodney Collins, Anson; S. R. Folsom, Bucksport; Joel Howe, Newcastle; E Atwood & Co, Buckfield; Asa Abbot, Farmington; Albert Read, Lincolnville; Joseph Hocky, Freedom; G. H. Adams, Saco; J. Frost, Kennebunk; J. G. Loring, North Yarmouth; Holt & Hoyt, Ripley; James Fillebrown Jr, Readfield; Wilson & Whitmore, Richmond; Dudley Moody & Co, Kent's Hill, Readfield; H. Rooth, Gardiner; W. & H. Steaens, Pittston; Edmund Dana, Wiscasset; Jeremiah O'Brien, Machias; James Read, Hope.

Hallowell, Noaember 3d, 183[illegible]